

# Murdoch MacKay Collegiate



## Grade 9 – Optional Courses 2020-2021

**MANITOBA HIGH SCHOOL CREDIT SYSTEM**

Grade 9	Grade 10	Grade 11	Grade 12 June Graduation
5 compulsory	5 compulsory	4 compulsory	3 compulsory
ENGLISH 1 credit	ENGLISH 1 credit	ENGLISH 1 credit	ENGLISH 1 credit
MATHEMATICS 1 credit	MATHEMATICS 1 credit	MATHEMATICS 1 credit	MATHEMATICS 1 credit
SCIENCE 1 credit	SCIENCE 1 credit	HISTORY 1 credit	PHYS. ED 1 credit
SOCIAL STUDIES 1 credit	GEOGRAPHY 1 credit	PHYS. ED 1 credit	2 Additional Grade 12 credit
PHYS. ED. 1 credit	PHYS. ED. 1 credit		1 Optional Credit
3 Optional credits	3 Optional credits	4 Optional credits	

TOTAL = 30

**FOR ADDITIONAL INFORMATION, PLEASE SEE A COUNSELLOR**

## **Visual Art 10S**

This is a studio based program centered around painting, drawing, design and sculpture. Students will be given the opportunity to experiment with a variety of techniques and materials. This course is not a requirement for the Grade 10 program.

## **Drama 10S**

This introductory Drama course is designed to develop students' intellectual, social, physical and imaginative skills by participating in creative games and exercises. Activities promote group cooperation, use of voice and body communication, team building skills and self-confidence. Participation and cooperation are essential to success in this course.

## **French 10F**

The French: Communication and Culture 10G course aims to continue to build skills learned in grade 8 general outcomes. Vocabulary and structures are introduced in a thematic approach based on the students' background and experiences. Topics to be covered may include: fashion/clothing/personal appearance, nationalities and countries, advertisements and slogans, sustainable development, French Canadian culture, family, travel and adventure through the use of movies, technology, games, skits, hands-on activities and writing.

## **Computer Science 20S**

Does technology control you? Is it time you learned how to control technology? Taking this course will provide you with an introduction to the world of Computer Science, and the power to program the technology of the future. In this course, you will be exposed to the discipline of Computer Science through introductory programming software and be given the opportunity to create basic animations and games. Programmable robots will be used to transition you from drag-and-drop programming to programming from scratch using the C# programming language. By progressing through a series of hands-on, problem solving challenges, you will develop both programming and problem solving skills. A final project, of

your choice (including a game), will demonstrate your cumulative learning.

## **Human Ecology/Family Studies**

These courses offered in Human Ecology/Family Studies provide hands on experience designed to:

- \* Develop personal management skills
- \* Plan personal nutrient guide
- \* Increase resourcefulness
- \* Plan a healthy, creative and satisfying lifestyle
- \* Prepare for career options
- \* Build transferable life management skills
- \* Prepare for future life roles
- \* Increase global awareness
- \* Learn strategies for successful relationships

## **Foods & Nutrition 10S**

This is an introductory course for students who may or may not have any previous Foods experience. Foods and Nutrition 10S is the study of the choices people make every day as they relate to food. Students learn how food affects their health, appearance, and energy. Choices made in the marketplace and in restaurants are analyzed. The practical part of the course includes preparing a variety of delicious and nutritious dishes. Food preparation skills are developed.

## **Family Studies 10S**

This course emphasizes the understanding of oneself. This is a hands-on course! It allows the student to acquire knowledge and skills through practice and experiential learning that are integrated into authentic work and parenting situations. Students will take home the electronic Baby and participate in many other activity based lessons. An important focus will be on the student's transition to the Senior Years and allowing the student to apply knowledge gained to his/her developing maturity.

Evaluation is based on class work, tests and a portfolio-based final exam.

## **Graphic Arts: An Overview**

The Graphic Arts Program is a general interest course but may be specially suited to students interested in pursuing a career in design, commercial art, fine art, communications, public relations, printing, advertising, photography, marketing and/or journalism. Students are exposed to many commercial printing and photographic processes. Emphasis is placed on both computer aided design and on producing printed communications including business cards, social tickets, newsletters, T-shirts, heat transfers, posters, air brushings, decals and photographic portraits.

### **Graphics Technology 10G**

#### **Orientation and Safety**

- graphic arts course description
- safety rules and equipment list
- WHMIS/MSDS information & Orientation

#### **Macintosh Operating System**

- computer orientation, terms and setup

#### **Design**

- principles & elements of design
- typography

#### **Layout**

- design/produce project folder
- safety poster for graphic arts

#### **Adobe Photoshop**

- introduction to Adobe Photoshop
- desktop design assignments
- image Manipulation
- Adobe Photoshop assignments

#### **Sign Production Processes**

- decals and sign making

#### **Screen Printing**

- custom printed t-shirts

#### **Black & White Photography**

- black and white photogram
- processing prints

#### **Digital Photography**

- understanding composition and digital images
- expose & download image file
- refine above photograph for export to desktop assignment

#### **Desktop Publishing**

- using specialized creative software to create layouts

#### **Portfolio Assignment**

- technical write ups with all completed projects in one unit

## **Electronics Technology Courses: An Overview**

These courses introduce students to the fields of electronics and technology and to the various career opportunities within these industries. The major focus is “hands-on” project work where students develop problem-solving and design skills and gain valuable experience utilizing a variety of electronic tools and computers. It is especially beneficial to those students who are interested in pursuing a career in engineering, science, telecommunications, architecture, mechanics or construction. However, the skills and experience obtained by taking these courses are valuable assets for everyday life and have proven to be beneficial to all.

### **Electronics Technology 10G**

This is a fun, exciting and informative program that deals with introductory electronics and teaches students the basics of electronic theory. It focuses on circuit board development, computer assisted design work, solar power, and cyborg/robotics. A few projects that are studied include:

1. An alarm system
2. A decision maker
3. A solar powered vehicle

## **Woodworking Industrial Arts**

### **Technology Courses:**

#### **An Overview**

The Woodworking Technology program offers you the opportunity to participate in an enjoyable, educationally sound approach to learning. A major focus is “hands-on” project work where students develop problem-solving and practical skills. Whether you’re considering University, College or just interested in learning by constructing a variety of exciting practical projects then this is the course for you. These programs are open to ALL STUDENTS and no prerequisite is required for any of the four full credit programs offered. Students are given the opportunity to develop useful skills through the use of various types of tools and machinery with safety being stressed at all levels. Woodworking Technology: Don’t leave school without it.

## **Woodworking Technology 10G**

Grade 9 Woodworking is an excellent hands-on course that affords students the opportunity to design and construct projects. Using safe practice, the students will enhance their skills in the use of modern tools and machines. The study of material and processes will help you understand both industrial and environmental concerns. Topics covered will help reinforce student knowledge in other subjects such as Math, Science and Social Studies. This is a fun approach to learning that will not only help the student feel pride, but help raise self-esteem.

The following topics will be covered:

- Projects such as clocks, wood art, cabinets, baseball bats and bowls
- Safety
- Wood Identification and Management
- Planning and Design
- Fasteners
- Computer Aided Design(CAD)
- Finishes and Finishing
- Measurement, Layout
- Career Development

## **Drafting Design Technology 10S**

The Drafting Design introductory course will be offered at Murdoch MacKay primarily to create an awareness towards this discipline. Many students do not really know the scope of engineering itself, much less what the difference is between a civil or mechanical engineer. This awareness is not only to teach about the different types of engineering, but also steps to become an engineer. A key component to this process is the focus on the development of critical thinking skills required in the engineering field itself. Students will model and create prototypes such as spaghetti bridge design, solar or wind propelled vehicles and wind turbines.

## **Drafting Design Technology**

Pre-engineering is a dynamic and innovative specialized program that provides students with virtual online simulations. Students will work with robotic, pneumatic, electrical, wind, solar, automated and other green technologies to apply knowledge and skills to solve authentic engineering problems in various fields of engineering. The pre-engineering program here at Murdoch MacKay Collegiate is an activities oriented program designed to challenge and engage the natural curiosity and imagination of students.

## **MUSIC DEPARTMENT**

The curriculum of music study at Murdoch MacKay Collegiate is designed to provide you with exceptional and enjoyable musical experience. Whether you want to participate in a great band, jazz band, or choir, or if you are interested in preparing for university study and a career in music, we have opportunities that will help you to succeed.

### **Band 10S**

The Murdoch MacKay Bands are performance ensembles including all Grade 9 to Grade 12 band students. The focus of these groups is on the development of basic instrumental technique and the performance of quality Wind Band Literature and Orchestral Transcriptions. In years where student interest is sufficient, an auditioned Wind Ensemble is offered, comprised of students from all grade levels based on instrumental ability.

### **Choral 10S**

Joining a choir is a uniquely satisfying experience. Murdoch MacKay's choral program will provide students with an interest in vocal music the opportunity to develop skills in this area. Students will learn and perform music of different styles and time periods and have many opportunities to perform throughout the year.

### **Guitar 10S**

Our guitar course is designed for beginners to the guitar. Students will be introduced to the fingerboard, basic chord shapes, and learn correct hand technique, while exploring popular and classical guitar music. Lead and rhythm guitar skills will be developed.

As this will be a semestered course, students will play every day. Guitars will be provided for use in class.

Students may play in small ensembles, individually, or together as a class, depending on interest. Opportunities will be given for more advanced students to progress at their own level. Enrolment will be limited.

### **Jazz Band 10S**

Murdoch MacKay's Jazz Band is a performance ensemble which focuses on the study of different eras of big band jazz music. The study of authentic jazz improvisation, jazz phrasing and articulations, as well as replicating the characteristic sounds of famous ensembles (Duke Ellington, Count Basie, Thad Jones/Mel Lewis, Stan Kenton and others) through quality literature are main focuses of the group.

All members of the Jazz Band must also be enrolled in Band.

### **Vocal Jazz 10S**

Murdoch Mackay's Vocal Jazz Ensemble is a dynamic performance ensemble that focuses on the study of different areas of vocal jazz music. The study of authentic jazz performance practice as well as replicating characteristic sounds of famous vocalists (Ella Fitzgerald, Frank Sinatra, Mel Torme, Sarah Vaughn and others) through quality jazz literature are the goals of the course. Some focus will also be given to performance of contemporary acappella and pop music

## TECHNICAL EDUCATION PROGRAMS

Technical Education programs provide students with job skills that can be used for:

Employment opportunities upon graduation  
Apprenticeship programs  
Entry into College and University Programs

### **AUTOMOTIVE TECHNOLOGY** (Level 1 Accredited)

Students work with tools and equipment to service, diagnose and repair all types of vehicles. Areas of study include: engine fundamentals, fuel systems, drive trains, climate controls including air conditioning and electrical systems.

### **FASHION TECHNOLOGY**

Students study all facets of the fashion industry. Areas include: basic pattern design and production, fashion illustration, industrial sewing techniques and garment construction.

### **CARPENTRY**

Students work with tools and equipment to learn skills related to the carpentry trade. Areas include: hand tools, portable power tools, stationary equipment, surveying, foundations, stairs, cabinets, masonry, interior/exterior finishing, furniture construction and CAD (computer aided drawing).

### **METALS & AEROSPACE** (Level 1 Accredited)

Students work with hand tools and equipment related to the metal industries. Areas include: blueprint reading, hand tools, basic and advanced lathe, milling and grinding, and CNC machining (computer numerical control).

### **WELDING TECHNOLOGY** (Level 1 Accredited)

Students work with hand tools and equipment related to the Welding industry. Areas of study include: oxy-acetylene welding/cutting, hand tools, basic and advanced GMAW/SMAW/GTAW, CNC Plasma Design and blueprint reading.

## Technical Education

### GRADE 9 TRY-A-TRADE

The TRY-A-TRADE program gives students an opportunity to explore a variety of vocational programs within one school year. This will assist students in determining future career paths, interests, and examples being: Automotive & Welding Technology, and/or Carpentry & Machining Technology (Metals & Aerospace). This provides students with hands on experiences and allows for better informed decisions when selecting their vocation of choice for grades 10 thru 12. Fashion Technology offers a full credit option for grade 9 students.

Please note that students enrolling in Automotive Technology, Welding Technology, Machining Technology or Carpentry will require CSA approved footwear.

### **Exploring Technical Education**

**For Grade 9 students who are unsure of what path of interest to follow, enrolling in each course will introduce them to two areas of technology at a time (4 in total, should they choose).**

#### **Automotive Technology & Welding Technology**

Participating students will complete a variety of activities and projects in both areas over one semester and gain a wide range of skills. Upon completion of the course, the students will be able to make future course selections based on their success and specific interests.

These are introductory courses intended for students wishing to sample both Automotive and Welding Technology. The emphasis is on hands-on activities. Students will be introduced to safety, tools and equipment specific to each area. Automotive fundamentals and welding processes will be introduced.

#### **Carpentry & Machining Technology (Metals & Aerospace)**

Participating students will complete a variety of activities and projects in both areas over one semester and gain a wide range of skills. Upon completion of the course, the students will be able to make future course selections based on their success and specific interests.

These are introductory courses intended for students wishing to sample both Carpentry and Machining. The emphasis is on hands-on activities. Students will be introduced to safety, tools and equipment specific to each area. Carpentry fundamentals and metal fabrication processes will be introduced.

### **Fashion Technology**

Exploration of Fashion Design & Technology 10S

Students study all facets of the fashion industry. Areas include: basic pattern design and production, fashion illustration, industrial sewing techniques and garment construction. Project ideas include beadwork, stenciling and embroidery.

**Some technical programs include a work experience component as part of the program in their grade 12 year.**